STANDARD OIL BULLETIN

PUBLISHED BY THE STANDARD OIL COMPANY OF CALIFORNIA

OCTOBER 1934

DUMMIES FLY TO AID ROOKIES

EMULATING the well-known man of the flying trapeze, who floats through the air with the greatest of ease, student aviators at Hamilton Field, the Army's new bombing base on San Francisco Bay, near San Rafael, do considerable air-floating themselves—attached to parachutes. Under the expert tutelage of veteran fliers and with the finest of aviation equipment, these Air Corps reserve officers receive intensive training, from the approved method of "bailing out" for a parachute trip to earth, to the newest scientific flying technique. Preliminary to parachute jumping, the fliers pack parachutes and test them with the able assistance of man-sized dummies. Above is pictured one of the first steps, preparing a dummy for a test. The facilities available for air training at Hamilton Field are enumerated on page 11.

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PUBLISHED MONTHLY BY
STANDARD OIL COMPANY OF CALIFORNIA

PUBLICATION OFFICE:
STANDARD OIL BUILDING, SAN FRANCISCO

The aim of the STANDARD OIL BULLETIN is to furnish first hand and authoritatively to the Company stockholders, employees, and patrons, as well as the general public, *facts* concerning the Company's business and its methods.

Address communications to STANDARD OIL BULLETIN, Standard Oil Building, San Francisco, California.

VOLUME XXII OCTOBER, 1934 NUMBER 6

TAXES, TAXES, TAXES!

THE Petroleum Industries Committee of the American Petroleum Institute has lately been looking into the matter of how many taxes are paid by oil companies, and has discovered 24 Federal taxes, 68 State taxes, 5 County taxes and 19 City taxes, making a bewildering grand total of 116 classes of taxes of all kinds. Apparently the list is prepared to cover the United States, and the whole number does not fall on any one oil company. An examination of the list reveals that in California, for example, only 45 of the 116 taxes are in effect. Many of the taxes are quite remote from the final price of gasoline, but they nevertheless have some effect. Many taxes of a similar nature are paid several times over in the course of production, transportation, refining, and marketing, or are duplicated between Federal, State, County, or City. Of the 45 taxes which fall upon an oil company in California, there are 23 that can be considered as being directly reflected in the price of gasoline. These include taxation from the time the crude oil is taken from the ground until the gasoline enters the tank of a motor vehicle. There is a county tax on the value of oil deposits; a county personal property tax; county improvement tax; county real-estate tax; county or district fire tax; city and county license tax; city improvement tax; city severance tax; city pipe-line license tax; city filling station privilege; state and city motor-truck license taxes; state trailer license tax; state franchise tax; state petroleum and gas fund; state gasoline tax; state gross-receipts tax; state pump tax; federal pipe-line transportation tax; federal gasoline tax; federal income tax; federal crude-oil production tax; federal crude-oil refining tax; federal gasoline refining tax.

Of more direct interest to the motorist, however, is the tax burden he is carrying. Thomas P. Henry, president of the American Automobile Association, has lately cited the fact that in 1933 motor-vehicle taxation reached a new peak of approximately $1,180,000,000, or more than $50 a car. He added that "no other class of citizens, and certainly no class of property, is subjected to such a burdensome variety of taxes." He thinks that the future of the automotive industry, with a retail annual turnover in excess of $9,000,000,000 and employing 10% of the "gainful workers" of the country, largely hinges upon the degree to which highway transportation is free from burdensome taxation.

The structures of the California Pacific International Exposition are a triumph of the Spanish-Colonial style of architecture, a school of design chosen when the permanent buildings were constructed in 1915. There are, of course, deviations from this architectural theme, such as the quaint constructions of foreign lands, without which no exposition could be international. The visitor will find countless spots of loveliness in this well-planned park.

Looking across the down-town district of San Diego to the tree-grown, garden-plotted, building studded Balboa Park, site of the city's 1935 exposition. The tower of the classical California State Building may be seen rising above trees that have transformed this area from a dry *mesa*, overgrown with chaparral and overrun by coyotes, to a garden-spot of rare charm and beauty. The park is indeed "made to order" for such an exposition as this one is.

SPANNING FOUR HUNDRED YEARS

ALMOST four centuries ago the Spanish galleons of Cabrillo swept up from the southern horizon to discover the harbor of San Diego and to open to eventual colonization the spot that is known today as the birthplace of California. It is known that the explorer pictured himself unfolding material treasures greater than any his day knew; it was far beyond the wildest flight of his Latin imagination that in this new-found land would rise a great empire and the playground of a nation.

Cabrillo dropped his anchors in the lee of Point Loma only forty years after Columbus first landed on the little island of San Salvador, and twenty years after Balboa, who, crossing the Isthmus of Panama, looked down on the unknown waters of the Pacific and with a magnificent gesture claimed that ocean and all its adjacent lands as the property of the King of Spain. Nearly eighty years were to pass after Cabrillo's memorable voyage before the Pilgrims landed at Plymouth and founded the first colony in New England. So San Diego's age is something of which to be proud, and the modern dwellers in this charming place make no effort to conceal their pride. They are at this writing busily preparing to welcome the world at a great pageant based on and making visual this pride—the California Pacific International Exposition, to be opened in May, 1935.

The province of this fair is several-fold: To stimulate recovery in the West; to depict the past, the present, and the future; to promote a new realization of culture, beauty, science, history, art, and recreation. Fortunately, the community's life is still deeply colored by old traditions, the heritage of Cabrillo, Portolá, Fra Junípero Serra. It was

The Foods and Beverages Building, on the Avenue of Nations, has a distinct beauty. The main entrance, with its two towers, is typical of a Spanish monastery in the Churrigueresque style; in addition to the artistic interest of the entrance, the apse and choir of the chapel extend from the building to form one side of a Spanish court

here that the latter founded the first Mission, San Diego de Alcalá, the forerunner of that long chain of twenty-one missions extending northward beyond San Francisco Bay. What more fitting than that San Diego, where California began and where are found so many evidences of early lore, should stage such a historical spectacle? And what more in keeping with the setting than that the architectural theme should be Spanish Colonial? Even the nomenclature of the region harks back to those gallant days, and appropriately it appears in connection with the exposition — El Cabrillo Puente, Plaza de Balboa, Plaza de Panama, Avenida de los Palacios, Laguna de Cabrillo. For the great pageant will span the centuries between the city's romantic beginning and its place in the sun today—all that is old and all that is new in the growth of southern California.

It is doubtful if any other exposition has ever been so supremely blessed in its location. Speaking of the region in general, Fra Serra paid tribute to its charm in a letter written in 1769: "I arrived the day before yesterday at this port of San Diego, truly a fine one and with reason famous. Here I found those who had set out before me, by sea as well as by land. . . . The tract through which we have passed is generally very good land, with plenty of water; here the country is neither rocky nor overcome with brushwood. There are, however, many hills, but they are composed of earth. . . . We found vines of a large size, and in some cases quite loaded with grapes. We also found abundance of roses, which appeared to be the same as those of Castile. In fine, it is a good country."

It is easy to imagine the enthusiasm of this observant padre were it possible for him to "pass through" the 1400-acre tract known as Balboa Park, in the heart of San Diego, where the exposition stands. For to the bountiful gifts of nature in this "good country" man has added a touch of enduring art. It began twenty years ago, when in this verdant park the people of San Diego built and staged—and planted—a colorful exposition to celebrate the opening of the Panama Canal, an exposition that earned the complimentary description of "a little gem." Balboa Park occupies a *mesa*, broken by numerous

In order to cross Cabrillo Cañon and reach the high *mesa* that is now Balboa Park, the engineers of the 1915 exposition built a seven-arch concrete bridge. In the years that have elapsed since then, the artfully planted trees have attained full growth, partly masking, partly revealing the graceful structure, enhancing its beauty

From the heart of San Diego the motorist drives across the paved Puente Cabrillo, and through the main western portal of the exposition, into what seems to be a walled and fortified, but strangely beautiful, medieval city. This street, now the Avenue of the Palaces, continues its easterly course and bisects the exposition

In the many courts formed by the buildings and by walls of bamboo, banana, papyrus, and other trees, the landscape artists have shown skill and discretion, creating magic gardens to lure the sightseer. Pools with water-lilies and lotus abound; there are formal Spanish gardens; pergolas fairly buried under climbing vines; blazing riots of color, too, in semi-tropical flower-beds

cañadas, that rises above much of the surrounding territory. From this eminence the eyes drink in a panorama of beauty: a vision of a sapphire sea, the jutting rock of Point Loma round which Cabrillo sailed in 1542, the distant mountain peaks; over to the eastward begins the desert; to the south, the romantic land of Mexico. The natural approach from the west was across a deep cleft, Cañon Cabrillo, and to span this was constructed a concrete bridge over 100 feet high, and 450 feet long including the approaches, which led directly into the central avenue of the exposition. Certain buildings, the finest examples of Spanish Renaissance architecture, were built for permanency. Principal among these, and the dominating feature of that exposition, as it will be of this one, is the California State Building, a structure of the highest type of Old World cathedral design, with an ornamental façade, wrought by the famous sculptor brothers Piccirilli, that carries as much interest historically as artistically. This building, in fact, is declared to be the finest example of its type in this country; it is surmounted by a lofty dome, and its towering campanile rises from one corner. In many details it is a copy of the historical cathedral at Oaxaca, Mexico. It was a part of the carefully laid plan that, when the temporary buildings had had their day, these enduring structures and the bridge would form the nucleus of a great formally planted park on the order of that, say, at Versailles.

About this group of magnificent buildings San Diego has for more than a year been quietly planning many other huge structures, all designed to conform with the Spanish-Mexican architecture of the sixteenth and seventeenth centuries. In the construction work Standard Oil Products will be, as in the past, a vital factor, powering and lubricating contractors' equipment. A priceless advantage derived from the former project is that trees and shrubs planted then have attained mature size; the park and its buildings are thus given an atmosphere of great age, a novel feature for any exposition.

Much that has already been accomplished may be viewed from the jeweled tower of the California Building. Directly below this viewpoint, approaching from the west, are

Fronting on the Plaza de Panama, the great central court of the exposition, stands the outdoor organ pavilion, surrounded by man-made forest and open to the stars, for the climate of San Diego favors open-air concerts the year round. This is one of the few creations that departs from the Spanish Renaissance type of architecture

the seven white arches of the Cabrillo Bridge, its paved roadway entering Balboa Park through an ancient Spanish arch into an avenue of black acacia trees—the Avenue of the Palaces. About it, formally and informally placed, are the various completed buildings and those still to be completed. Any side-path from this central avenue is an adventure; it may lead to a bamboo garden, a sunlit court splashed with pansy-beds, a gorgeous patio rich with asters and zinnias, a still pool with blossoming water-lilies and mirroring the red-tiled cloisters of bordering buildings. Winding paths lead everywhere across the park's velvety lawns—to the world-famous Spreckels Outdoor Organ, the Zoological Gardens, the Museum of Natural History, the Fine Arts Building, the Botanical Building, the Taos Indian Pueblos—to name but a few of the structures and exhibits already prepared.

To the lover of gardens the whole of Balboa Park will prove an exhilarating, yet restful, experience. Growing things surround and in some instances almost cover the buildings. Up the carved arcades climb roses and jasmine and clematis. Over the arcades and upward to the red-tile roofs the blazing bougainvillea climbs to the belfreys where thousands of pigeons live and where swallows build their mud-walled nests. Truly a *Fiesta Hermosa*, this—a feast of beauty that has for its setting a five-million-dollar garden in which every plant, tree, flower, or shrub of the tropical world may be found.

Here, in this sub-tropical garden, housed in buildings seemingly of great age, all the countless exhibits of a changing world will present an amazing contrast between the old and the new—the romance and color of yesterday, the progress and science of today, the forecast of tomorrow. It is, of course, too early to treat of the completed fair, with its local, national, and international exhibits. Nor can such an exposition be summed up like figures on a tablet. Statistics, averages, cubic yards, areas, costs—all are available, but they are not the true measure of this unique international exposition. In general, it is known that many exhibitors at the Chicago World's Fair plan to participate in this

(Continued on page 16)

The western entrance, across Cabrillo Bridge and through an ancient Spanish arch, to the California Pacific International Exposition

Avenida de los Palacios, or Avenue of the Palaces, is the exposition's main thoroughfare, luxuriantly tree-lined and garden-bordered

WHY THIS EXPOSITION IS CALLED "THE GARDEN FAIR"

Courts ablaze with flowers are everywhere, linked together by walks, while trees frame graceful examples of architecture. Above is the 200-foot tower of the cathedral-like California Building; at the right, the Corinthian peristyle of the outdoor organ

Twenty years ago, when the original exposition was built at San Diego, the 1400-acre Balboa Park was skillfully planted so that the trees graded into the indigenous growth of live oak, sage, mesquite, and cactus. Today these trees tower high

A view of the three-story administration headquarters and the barracks for enlisted men at Hamilton Field, a community that resembles a well-planned town. Besides its hangars, shops, and warehouses, the settlement has all the conveniences—water, gas, electric and telephone service, street-lighting system, and fire-fighting equipment

Here are some of the homes built for officers and their families, as well as some apartments for non-commissioned officers. The residential section is well laid out, with miles of paved streets and a comprehensive plan of landscape gardening. The buildings all conform to the Spanish type of architecture.
(Redwood Empire Assn., photographs)

In one of the ten huge Hamilton Field airplane hangars—the largest structures of their kind ever built. They are capable of housing many scores of the big 200-mile-an-hour bombing-planes as well as other smaller ships. The complete shops adjoining the hangars are equipped to assemble planes and to manufacture other equipment

CALIFORNIA'S NEW AIR-DEFENSE UNIT

WITHOUT fuss or ostentation, Uncle Sam has been at work for the last two years perfecting an aerial-defense unit that is without equal in the entire world—Hamilton Field, the new $5,000,000 bombing base in Marin County, near San Rafael. During the month of November this "most complete aviation plant ever devised" will be completed. Then the Army Air Corps expects to base its 200-mile-an-hour bombing-planes, declared to be the last word in military aircraft development, in the ten huge hangars.

As a beginning, twelve of the new "B-12's" will be brought to the base. These ships are monoplanes, each with a capacity of five men and a tremendous fighting load. Other smaller planes will be added, and 30 officers and their families and 700 enlisted men will be stationed at Hamilton Field. Already there are 175 air-service men at the base, where about 1000 civilian workers are busy finishing the big aviation plant and doing landscape gardening. In addition to the ten hangars, administration buildings, machine-shops, barracks, and other necessary structures, there has been created a model city of officers' homes, attractive buildings of typical Spanish architecture, their plaster walls and red-tile roofs exactly suiting the setting. Apartments for married non-commissioned officers and barracks for enlisted men carry out the same appropriate design. During all the construction work, Standard Oil Products helped speed the contracts on this 927-acre tract that was donated to the Government in 1929 by Marin County.

According to Captain Don L. Hutchins, field commander, Hamilton Field is virtually self-sustaining, with its shops for assembling planes and for making parachutes and other equipment. In fact, the Captain declares, the facilities would permit the manufacture of airplanes should that ever become necessary. Already the base is manufacturing efficient fliers with its intensive training course. During August and September reserve officers of two observation squadrons were schooled in parachute use, combat formations and the Army's latest science of flying. Reserve officers of the Ninth Corps Area will train for two weeks each year at Hamilton Field under regular Air Corps officers.

Here is the gas-trap described in this article. The gas itself is thought to be generated in the Pleistocene formation—lacustrine, fluviatile, sub-aerial sediments—in the central part of the Tulare Basin. Fingers and lenses of sand leading out from this area permit the gas to find its way to the sands about the rim of the old lake-bed. When a deep well is bored into these sands, the gas comes to the surface with the pumped water

WATER-PUMPS THAT PUMP THEIR OWN FUEL

MANY a landholder has wished for some means of lifting irrigation water from deep wells without spending money, which is, of course, an impossibility. There are, however, regions where Nature lends a hand to the farmer, providing fuel from her underground storehouse for driving the pumping engine. One such region is the Tulare Lake Basin, Kings County, California, a territory once covered with water, but now devoted to agriculture. Deep down under this old lake-bed is a seemingly inexhaustible supply of natural gas. Although the area lies in the San Joaquin Valley not far from the Kettleman Hills oil-field, this gas is not derived from petroleum, but from the decomposition of vegetable matter. The so-called marsh-gas (methane) finds its way to the surface with the water pumped from the wells, and dissipates into the atmosphere unless captured and put to work.

That is just what many farmers are doing—trapping the gas and putting it to work to pump more water, which supplies more gas to pump more water, and so on in a continuous cycle. This almost ideal arrangement is not, of course, without its cost. There is an installation expense for gas-engine, tanks, piping, and such like. But once a well is equipped to use this free fuel, a rancher simply opens a feed-valve, starts his engine, and pumps his water without having a bill for power or fuel drop in on him at the end of the month.

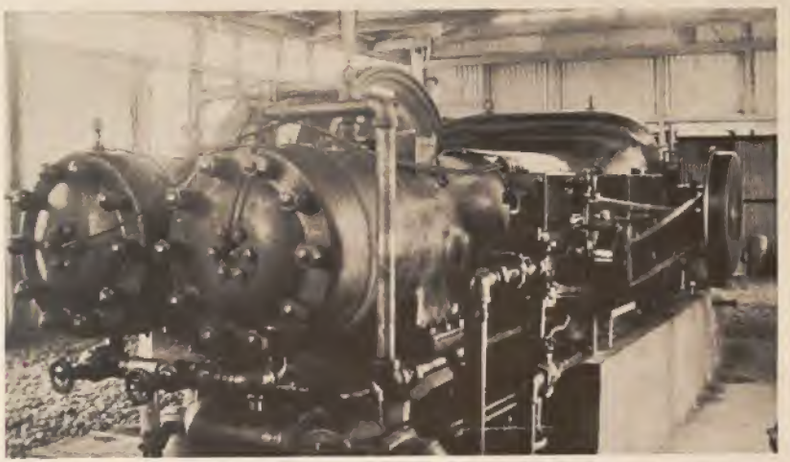
Not all deep wells in this district supply enough methane to operate an engine. In such cases many owners provide the necessary additional fuel by using BuGas (butane), supplied by the Standard Oil Company of California. Other pumping plants, here as well as in other parts of the West, are powered entirely by BuGas, with most satisfactory results. Still other wells produce not only enough gas to operate their own pumps, but to drive engines at wells that do not yield an adequate amount for their own requirements. According to local information, this ingenious method of making gas from a well lift water from that well was first developed by the ranchers of this county.

An outstanding example of such successful harnessing of natural gas for useful work is found on the property of J. R. Newton, at Stratford, one of the largest ranches in the Tulare Lake Basin. After several years of study and the application of considerable ingenuity, Mr. Newton has a pumping plant that operates perfectly with no cost for fuel. He is fortunate in having a well that produces an abundance of gas—approximately 135,000 cubic feet of methane every 24 hours. The engine requires about 35,000 cubic feet a day, so the surplus gas at present is allowed to waste.

At first glance the utilization of this natural power seems to be a complicated matter, but in reality it is a simple problem in physics. The well on this ranch is 1650 feet deep. The power developed by the 140-horsepower gas-engine is transmitted by a belt to two deep-well pumps operating on the same shaft, one installed at a depth of 160 feet, the other at 200 feet. With the engine turning up 275 revolutions a minute, the pumps produce 1850 gallons of water a minute. Trapping the gas is simplicity itself. The gas-trap is an inverted tank, under which the water flows from the well. The gas rises and is conducted to the engine through a pipe at the top of the tank. In order to increase the pressure in the gas-line, the tank-top carries over three tons of weight. This gives a pressure of about four ounces at the engine's mixing chamber. The plant has an automatic gadget that operates, should anything interrupt the supply of natural gas, to cut out that source of fuel and cut in the commercial gas.

For nine years previous to installing his gas-trap and gas-engine Mr. Newton pumped water from this deep well by electricity. With the new arrangement, he figures to develop water at about one-sixth the former cost per acre. It would indeed be a sad thing for power companies and fuel-sellers if all Western ranchers could follow the example of this landowner and a number of others in the same district. But as lavish as Nature is in many ways, she confines her supply of methane to special areas such as this old lake-bed.

As might be expected, the equipment at the Newton ranch is efficiently and economically lubricated by Standard Oil Products. Many other plants in the Tulare Lake Basin likewise depend on these prime lubricants, whether their power is developed by marsh-gas, BuGas, electric current, or unsurpassed Standard Gasoline.



This 140-horsepower two-cylinder gas-engine lifts the water and its entrained gas to the surface on the Newton ranch. The heads of this engine are inverted, a suggestion made by a Standard Oil Lubricating Engineer, to allow better water circulation around the exhaust valves and to reduce heat in the lower part of the cylinders, thus preventing the possibility of excessive carbon. Calol Gas Engine Oil is the lubricant used, by the way

CALIFORNIA OIL-FIELD OPERATIONS FOR AUGUST - 1934

ACCORDING to figures collected by the American Petroleum Institute, the total production of crude oil in California for August amounted to 15,291,637 barrels, an average of 493,279 barrels per day. This is a decrease of 24,599 barrels per day under July production.

Total stocks of crude and all products in Pacific Coast territory decreased during the month 2,284,087 barrels. The total stocks at the end of the month were 136,130,333 barrels. The total stock decrease for 1934, up to August 31st, was 15,628,934 barrels.

Thirty-three wells were completed during the month, with an initial daily production of 64,599 barrels, compared with 25 wells completed during July, with an initial daily production of 35,896 barrels.

PRODUCTION AND DEVELOPMENT

(Figures of Production and Stocks are in barrels of 42 gallons)

DISTRICT	PRODUCTION		DEVELOPMENT						
	Barrels Per Month	Daily Average	New Rigs up	Active Drilling	Producers Completed	Daily Initial Output	Active Producing	Abandoned (**)	Abandoned (***)
Group No. 1:									
Beldridge—North	175,195	5,651	1	5	1	3,431	21	1	..
Beldridge—South	62,050	2,002	..	..	..	...	125	..	..
Coalinga	597,852	19,286	..	..	1	55	963	..	..
Edison	2,185	71	3	10	1	50	4	..	..
Elk Hills	243,749	7,863	..	..	..	...	178	..	..
Fruitvale	100,975	3,257	1	2	1	150	63	1	..
Kern River	336,351	10,850	1	..	..	...	1,351	..	..
Kettleman Middle Dome	5,221	168	..	1	..	...	1	..	..
Kettleman North Dome	1,981,680	63,925	4	24	8	41,915	71	..	..
Lost Hills	138,481	4,467	..	..	..	...	327	..	..
McKittrick	90,006	2,903	..	2	..	...	185	..	..
Midway-Sunset	1,658,580	53,503	1	8	..	...	2,430	..	..
Mountain View	225,332	7,269	2	14	2	2,440	27	..	..
Mount Poso	306,738	9,895	8	5	4	2,594	137	2	..
Round Mountain	138,408	4,465	1	..	..	...	46	1	..
Wheeler Ridge	13,377	432	..	..	..	...	34	..	..
Group No. 2:									
Capitan	18,894	610	1	2	..	...	9	..	..
Elwood	387,366	12,496	..	5	1	1,000	55	..	..
Rincon	44,403	1,432	..	..	..	...	29	1	..
San Miguelito	22,808	739	..	1	..	...	3	..	..
Santa Barbara	49,810	1,607	8	8	4	3,935	20	..	..
Santa Maria	165,393	5,335	2	2	1	140	181	1	2
Summerland	1,825	59	..	..	..	...	22	..	..
Ventura Avenue	847,214	27,330	1	13	1	1,635	161	..	..
Ventura-Newhall	136,979	4,419	3	15	..	...	459	2	5
Watsonville	1,860	60	..	..	..	...	7	..	..
Group No. 3:									
Brea-Olinda (Fullerton)	348,052	11,227	..	1	..	...	350	1	..
Coyote—East	85,134	2,746	1	..	..	...	74	1	..
Coyote—West	293,640	9,472	..	2	2	420	36	..	..
Dominguez	608,371	19,625	2	8	1	1,463	65	1	..
Huntington Beach	1,372,692	44,280	2	4	1	101	469	..	1
Inglewood	293,061	9,454	..	5	1	1,895	204	..	..
Lawndale	4,729	152	..	..	..	...	7	..	..
Long Beach	1,948,362	62,850	8	17	3	343	1,078	..	..
Los Angeles-Salt Lake	24,060	776	..	..	..	...	149	..	..
Montebello	169,150	5,456	..	9	..	...	162	..	..
Playa Del Rey	258,687	8,345	1	2	..	...	164	..	..
Potrero	11,908	387	..	..	..	...	11	..	..
Richfield	266,584	8,599	..	..	..	...	244	2	..
Rosecrans	92,378	2,980	..	1	..	...	71	..	..
Santa Fe Springs	1,240,623	40,020	1	9	..	...	524	1	..
Seal Beach	264,846	8,543	..	..	..	...	115	..	1
Torrance	224,733	7,249	..	..	..	...	471	..	..
Whittier	31,735	1,024	..	..	..	...	158	..	..
Group No. 4:									
Buttonwillow Gas Field	.....	.....	..	1	..	...	...	..	..
Dudley Ridge Gas Field	.....	.....	..	..	..	...	...	..	..
Goleta Gas Field	.....	.....	1	2	..	...	...	..	..
Miscellaneous Drilling	.....	.....	3	28	..	...	...	11	..
Total (August)	15,291,637	493,279	56	206	33	64,599	11,261	26	9
Total (July)	16,054,232	517,878	46	211	25	35,896	11,245	17	9
Decrease	762,595	24,599	10*	5	8*	28,703*	16*	9*	..
Average for year 1933			30	124	21	22,812	9,199	14	18
Average for year 1932			18	108	15	13,069	8,928	16	14
Average for year 1931			22	207	21	30,370	8,911	20	15

* Increase. (**) Drillers. (***) Producers.

STOCKS HELD IN PACIFIC COAST TERRITORY BY CALIFORNIA OIL COMPANIES

	Aug. 31, 1934	July 31, 1934	Aug. Stock Changes	Dec. 31, 1933
1. Non-Gasoline-Bearing Crude, Residuum, Gas, and Diesel Oils	76,348,570	78,448,445	— 2,099,875	92,664,274
2. Gasoline-Bearing Crude	36,281,310	35,851,686	+ 429,654	35,879,163
3. Unblended Natural Gasoline	2,701,146	2,512,023	+ 189,123	2,304,194
4. Gasoline (not including distributing and service stations)	12,317,462	13,068,436	— 750,974	12,687,385
5. Naphtha Distillates	1,124,460*	1,315,191*	— 190,731	1,347,891*
6. All Other Stocks	7,357,355†	7,218,639†	+ 138,716	6,876,360†
7. Total	136,130,333	138,414,420	— 2,284,087	151,759,267
* Estimated amount of unfinished gasoline contained in item No. 5	882,901	1,027,330		1,024,397
† Coke included in item No. 6	602,423	607,124		620,313

CRUDE OIL PRICES AT THE WELL

SAN FRANCISCO, CAL., OCTOBER 1, 1934: Effective September 6, 1933, at 7:00 A.M., (except Mountain View field) the following are the prices of the STANDARD OIL COMPANY OF CALIFORNIA for its current purchases of crude oil at the well (unless otherwise specified). Price per barrel of 42 gallons in fields indicated. *(All gravities above those quoted take highest price offered in that field.)*

Gravity	Signal Hill	Seal Beach Alamitos Heights	Hunt-ington Beach	Ingle-wood	Playa Del Rey	Olinda-Brea Cañon	Athens-Rosecrans-Dominguez	Elwood Ter-race	Torrance	Rich-field	Whittier La Habra
14 - 14.9	$ .65	$ .65	$ .65	$ .65	$ .65	$ .65	...		$ .65	$ .65	$ .65
15 - 15.9	.65	.65	.69	.69	.66	.69	...	F.O.B.	.66	.65	.65
16 - 16.9	.66	.65	.72	.73	.69	.73	...	Ship	.69	.67	.68
17 - 17.9	.69	.65	.75	.76	.73	.76	...	...	.72	.70	.71
18 - 18.9	.72	.65	.78	.80	.76	.79	...	...	.75	.74	.74
19 - 19.9	.75	.65	.81	.83	.80	.82	...	...	.78	.78	.78
20 - 20.9	.78	.68	.83	.87	.83	.85	...	...	.81	.82	.81
21 - 21.9	.81	.72	.86	.90	.87	.88	...	...	.83	.85	.84
22 - 22.9	.84	.76	.89	.94	.90	.92	...	...	.86	.89	.87
23 - 23.9	.88	.81	.92	.97	.94	.95	$ .83	...	.89	.93	.90
24 - 24.9	.91	.85	.95	1.01	.97	.98	.86	...	.92	.97	.93
25 - 25.9	.94	.89	.98	...	1.00	1.01	.90	...	.95	1.00	...
26 - 26.9	.97	.93	1.01	...	1.04	1.04	.94	...	.98	1.04	...
27 - 27.9	1.00	.98	1.04	...		1.07	.97	...	...	1.08	...
28 - 28.9	1.03	1.02	1.07	...		1.10	1.01	...	...	1.11	...
29 - 29.9	1.06	1.06	1.09	...		...	1.04	...	...	1.15	...
30 - 30.9	1.09	1.10	1.12	...		...	1.08	...	...	...	...
31 - 31.9	...	...	...	...		...	1.12	...	...	...	...
32 - 32.9	...	...	...	...		...	1.15	...	...	...	...
33 - 33.9	...	...	...	...		...	...	$1.03	...	...	...
34 - 34.9	...	...	...	...		...	...	1.06	...	...	...
35 - 35.9	...	...	...	...		...	...	1.09	...	...	...
36 - 36.9	...	...	...	...		...	...	1.12	...	...	...
37 - 37.9	...	...	...	...		...	...	1.15	...	...	...

Subject to field gathering charge of 5 cents per bbl.

Gravity	Monte-bello	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	* Mountain View	Midway-Sunset Elk Hills Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge	Kettleman Hills
14 - 14.9	$ .65	$ .65	...	$ .57	$ .57	$ .57	$ .57	$ .57	$ .57	...
15 - 15.9	.65	.65	...	.57	.57	.57	.57	.57	.57	...
16 - 16.9	.65	.65	...	.57	.57	.57	.57	.57	.57	...
17 - 17.9	.65	.68	...	.57	.57	.57	.57	.57	.57	...
18 - 18.9	.65	.71	...	.57	.57	.61	.61	.59	.58	...
19 - 19.9	.65	.74	...	.57	.57	.64	.65	.62	.61	...
20 - 20.9	.66	.78	...	...	.58	.67	.69	.65	.64	...
21 - 21.9	.69	.81	$ .72	...	.59	.70	.73	.68	.67	...
22 - 22.9	.72	.84	.76	...	.61	.73	.76	.72	.70	...
23 - 23.9	.76	.87	.79	...	.63	.77	.79	.75	.73	...
24 - 24.9	.80	.90	.83	...	.66	.81	.82	.78	.76	...
25 - 25.9	.85	.93	.87	...	.69	.85	.88	.81	.79	...
26 - 26.9	.89	.96	.90	...	.72	.89	.88	...	...	...
27 - 27.9	...	.99	.94	...	.75	.93	.91	...	...	...
28 - 28.9	...	1.02	.98	...	.78	.97	.94	...	...	...
29 - 29.9	...	1.05	1.01	...	.81	1.01	.97	...	...	...
30 - 30.9	...	1.09	1.05	...	.84	1.05	1.00	...	...	...
31 - 31.9	...	1.12	1.08	...	.87	1.09	...	...	...	...
32 - 32.9	...	1.15	1.12	...	.90	1.13	...	...	...	...
33 - 33.9	...	1.18	1.16	...	.93	1.17	...	...	...	$ .93
34 - 34.9	...	1.21	1.19	...	...	...	...	...	...	.96
35 - 35.9	...	...	1.23	...	...	...	...	...	...	.99
36 - 36.9	...	...	1.26	...	...	...	...	...	...	1.02
37 - 37.9	...	...	1.30	...	...	...	...	...	...	1.05
38 - 38.9	...	...	1.34	...	...	...	...	...	...	1.08
39 - 39.9	...	...	...	...	...	...	...	...	...	1.11

* Prices effective July 3, 1934, 7 A.M.

Spanning Four Hundred Years

[Continued from page 7]

one; that there will be special pageants every day; that each program will be presented as a separate and distinct event, yet all of them linked together in a carefully planned pattern determined in advance for the entire exposition period.

The California Pacific International Exposition will open its hospitable gates to an influx of visitors on May 29, next year. More than 75 per cent of the construction work is now completed. Provision has been made for the parking of 10,000 motor-cars. The city of San Diego can accommodate, in its hotels and apartments, 50,000 visitors daily; before the exposition opens this capacity will undoubtedly be increased. But delightful "previews" of this great project are possible. Balboa Park is at present a fairyland of color and beauty, so riotously do all planted things grow under the benign influence of San Diego soil, water, and climate. It is well worth a sightseeing visit, this park that has been called "a haven of rest—a vast retreat." Its amazing variety of tree, shrub, and flower; its landscape gardening, so artful it conceals art; its calm and restful courts and patios flooded with warm sunshine — these are some of the things that make glad the hearts of those who stroll here. Add to them the stimulating glimpses of half-concealed and half-revealed façades and towers of gloriously designed buildings, and one can not blame the visitor for imagining he has been transported into some realm of fantasy. This is one exposition that starts with many of its best features already in place; some of its buildings already mellowed by time; its verdure already mature.

Just as Father Serra found here "roses that appeared to be the same as those of Castile," and pronounced the land "a good country," so will the modern visitor find and pronounce it, whether the visit is made before or after the exposition opens. For advance callers there is the enchantment of a fairylike park and fairylike buildings, some of the delights of which have been suggested. For the visitor who will taste the pleasures of the international fair, there will be gay music, sports, carnival nights, thrills on water, on land, and in the air; exhibits of priceless works of art and of all the myriad developments of science and industry—in all, a vast pageant indicating the changes that have taken place down through the centuries since Cabrillo sailed his galleons to the discovery of San Diego.

The Front Cover

ASKED to provide a painting for the front cover of this issue depicting the most characteristic feature of the coming San Diego exposition, the artist promptly chose as his subject the California State Building, without question the *pièce de résistance* of the entire project. Apart from being the most conspicuous unit, it creates the historic atmosphere for the rest of the fair—the Spanish-Colonial type of architecture, which has been called the most glorious temperamental architectural expression to be found on the American Continent. In his book, "The San Diego Garden Fair," published in 1916, Eugen Neuhas described this example of perfect composition: "The great tapering tower or campanile, reaching two hundred feet up into the blue sky, resembles any number of Spanish Renaissance belfries, such as that of Cordova or the celebrated Giralda at Seville or the tower at Chihuahua in Mexico, for instance. Like any great work of art, it is both effective from a distance and full of interesting detail at close range. It can be seen for miles around San Diego, and it is the dominant note of the exposition. It is one of the lasting impressions one carries away." Today, that tower dominates the new exposition as it did the old.

California Highway Work

DURING the present fiscal year ending June 30, 1935, the Division of Highways of the Department of Public Works will spend $18,200,000 of state and federal funds for construction on the California state highways of nearly 14,000 miles and $6,972,600 for maintenance and minor improvement work, according to a state report. The value of this program as a relief measure is indicated by the fact that it will provide 4,510,100 man-days of work. During the ten months from August 25, 1933, to June 15, 1934, construction work started by the state totaled 2363 miles of highway improvements on a definite, logical plan to meet traffic requirements. This required an expenditure of $23,940,000.

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